REMARKS

Reconsideration of the application is respectfully requested for the following reasons:

1. Rejection of Claims 22-24, 26, 27, 29, 34-36, 39, and 43 Under 35 USC §102(b) in view of U.S. Patent No. 2,978,621 (Martinek)

The rejection has been maintained on the grounds that even though reverse torque does not affect the rotor position during start-up (reverse torque only kicks in when the rotor reaches the rightmost thrust bearing), "*Because the direction of the current is changed, the rotor will rotate the other way and the axial rotor position keeps changing until the left thrust bearings (6 and 7) contact each other.*"

This grounds for maintaining the rejection is not understood. In the arrangement of Martinek, when the motor direction reverses, the rotor position does in fact change, but not in response to reverse torque. Reverse torque only causes the axial position of the shaft to change when the rotor reaches the end of its travel. Reversal of current by itself does not cause the shaft position to change.

Nevertheless, even though the Examiner's interpretation of the claims is not understood (if displacement of the rotor relative to the shaft occurs before any reverse torque, and the reverse torque does not cause the displacement, then the displacement cannot be "in response to" the reverse torque), claims 22 and 35 have been amended to further specify that the relative axial position of the rotor and shaft, and the characteristics of the motor, are changed ***when* the reverse torque occurs**, as suggested in item 1, lines 4-5, on page 2 of the Official Action.

In addition, claims 22 and 35 have been amended to specify that the reverse torque and relative movement occurs "**as the shaft rotates**," as opposed to Martinek's teaching of rotor movement **before** rotation of the shaft, *i.e.*, while the shaft is stationary. This amendment is also suggested by the Examiner, in item 1, lines 3-4, on page 2 of the Official Action.

This amendment does **not** involve **new issues** since it is in direct response to comments made by the Examiner in the final Office Action, and simply emphasizes limitations included in the original claims.

Finally, it is respectfully noted that the last line of claims 22 and 35 have been amended to consistently refer to the "electric field structure" rather than the "magnetic field structure," as suggested in the paragraph bridging pages 2 and 3 of the Official Action.

In view of the amendments presented above, and for the foregoing reasons, withdrawal of the rejection of claims 22-24, 26, 27, 29, 34-36, 39, and 43 under 35 USC §102(b) is respectfully requested.

2. Rejection of Claims 28 and 38 Under 35 USC §103(a) in view of U.S. Patent Nos. 2,978,621 (Martinek) and 1,131,551 (Price)

This rejection is again respectfully traversed on the grounds that the Price patent, like the Martinek patent, fails to disclose or suggest varying electrical characteristics by axially displacing the stator in response to reverse torque. To the contrary, the electrical machine of Price is designed to have a **varying air gap** in order to maintain a ***constant*** **output voltage**, as explained in col. 1, lines 9-20. This is exactly opposite to the claimed **constant gap** and ***varying*** **electrical characteristics**, and therefore withdrawal of the rejection of claims 28 and 38 under 35 USC §102(b) in view of the Price patent is respectfully requested.

3. Rejection of Claims 31-33, 37, and 40-42 Under 35 USC §103(a) in view of U.S. Patent Nos. 2,978,621 (Martinek) and 2,694,781 (Hinz)

This rejection is respectfully traversed on the grounds that the Hinz patent, like the Martinek patent, fails to disclose or suggest varying electrical characteristics by axially displacing the stator in response to reverse torque.

Instead, the Hinz patent discloses a motor designed to generate an axial thrust, in addition to rotation, in such a way that the "*axial force. . .remains constant along the path of displacement.*" There is no suggestion in Hinz of varying the electrical characteristics of the motor in response to axial displacement of the rotor, and certainly no suggestion that the rotor structure disclosed therein should be applied to a motor of the type disclosed by Martinek, in which axial displacement of the rotor is used to prevent rotation of a shaft until the motor reaches a speed at which reverse torque will not have a negative effect.

Since Martinek only moves the rotor during start-up, in the absence of reverse torque since shaft 10 is not yet turning, there is no possible reason to vary the physical properties of the rotor and/or magnetic field structure, as recited in various dependent claims of the present application (such as claims 31-33 and 40-42), much less provide a rotor that has a length greater than that of the magnetic field structure (claim 37). The Hinz patent does not provide any such reason for contradicting the basic teachings of Martinek since Hinz concerns an entirely different type of motor than the motor of Martinek. Accordingly, it would not have been obvious to combine the motors of Martinek and Hinz, and withdrawal of the rejection of claims 31-33, 37, and 40-42 under 35 USC §103(a) is respectfully requested.

Having thus overcome each of the rejections made in the Official Action, withdrawal of the rejections and expedited passage of the application to issue is requested.

Respectfully submitted,

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